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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,928	09/26/2003	Kouji Imai	21334-1259	8294
29450	7590	02/23/2006		
BARLEY SNYDER, LLC 1000 WESTLAKES DRIVE, SUITE 275 BERWYN, PA 19312			EXAMINER CAZAN, LIVIUS RADU	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,928

Applicant(s)

IMAI, KOUJI

Examiner

Livius R. Cazan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

3. The drawings are objected to because the drawings do not show the "upward facing opening" as claimed in claim 12. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be

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removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: on page 19, line 15, "may be cause" should read --may be caused--.

Appropriate correction is required.

Claim Objections

5. Claims 3, 4, 6, 8, and 10 are objected to because of the following informalities: "upon to" in line 5 of claims 3 and 4 should read --upon--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular, "the crimper and the anvil being movable toward and away from each other" as claimed in claim 1 (in lines 9 and 10 of page 20), and "an anvil and a crimper movable toward and away from each other" as claimed in claim 14 (in lines 16 and 17 on page 22), although mentioned on page 3, lines 25 and 26, were not described in the specification in such a manner as set forth above. However, on page 19, lines 21 and 22, the Applicant specifies that the anvil moves toward the crimper, which suggests that the Applicant interprets the phrase "the crimper and the anvil are movable toward and away from each other (page 3, lines 25 and 26)" to mean only the crimper moves, whereas the anvil is stationary. This interpretation will be used for examination purposes. However, note that if the invention would be made as set forth in the specification and in view of the above interpretation, having only the crimper movable, and then the stationary anvil would be replaced with a movable anvil, the

invention would be inoperable, since either no crimping action would occur, or the crimper and the anvil would be damaged.

8. Claims 12 and 13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a downward facing step, as described on page 8, line 16, and as claimed in claim 12 (line 2 of claim 12), does not reasonably provide enablement for an upward facing opening, as claimed in claim 12 (line 3 of claim 12). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The specification does not mention an upward facing opening of any kind as part of rail 14. Furthermore, it is unclear how this upward opening accommodates the collapsible terminals (as claimed in claim 12, lines 3 and 4)

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the phrases "the crimper and the anvil being movable toward and away from each other" in claim 1 (in lines 9 and 10 of page 20), and "an anvil and a crimper movable toward and away from each other" in claim 14 (in lines 16 and 17 on page 22), render the respective claims indefinite because it is unclear whether both the crimper and the anvil move, or if one of them is fixed with reference to the rest of the apparatus. As claimed, it would appear both the crimper and the anvil move.

11. Claims 2, 4, 6, 7, 8, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, as claimed, it is unclear what is placed on an anvil. From lines 2 and 3 of claim 2 it appears that an insertion hole is placed on an anvil, and that a conductive lead is inserted into this hole, whereas from lines 4-6 of claim 2 it appears that a conductive lead is inserted within an insertion hole of a terminal. This ambiguity should be corrected.

Regarding claim 8, as claimed, it is unclear whether a second conductor is indeed inserted into the collapsible terminal. As claimed, the apparatus must merely be capable of receiving a second conductor in a collapsible terminal, but such a conductor does not at any point *have* to be inserted into the collapsible terminal.

Claim 9 recites the limitation "the elongate component" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim since claim 1 only recites a component (line 2).

Regarding claim 12, it is unclear what is meant by "to accommodate the collapsible terminals" since it is unknown/uncertain as to where the "upward facing opening" is.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-8 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wigby et al. (US4272879).

a. Regarding claims 1 and 14, Wigby et al. disclose the same invention as the applicant, including:

i. an anvil configured to support a collapsible terminal (see anvils 45 and 46 in Figs. 1-4, anvil 45 in Fig. 5, terminal having crimp tabs 7 and 9 in Fig. 1 for example);

ii. a crimper aligned with the anvil, the crimper and the anvil being movable toward and away from each other to crush and release a terminal (see crimp blades 39 and 40 in Fig. 1 for example)

iii. a guide member having an upwardly open guide groove provided close to the anvil and aligned therewith for supporting a component and guiding a conductive lead into an insertion hole in a terminal (see guide 42 in Figs. 1 and 2 for example);

b. Regarding claim 2, (as best understood), Wigby et al. disclose the same invention as the applicant, including a wire termination apparatus wherein a terminal placed on an anvil and having a conductive lead inserted in an insertion hole of the terminal is crushed by a crimper, thereby terminating the conductive lead (see Fig. 2)

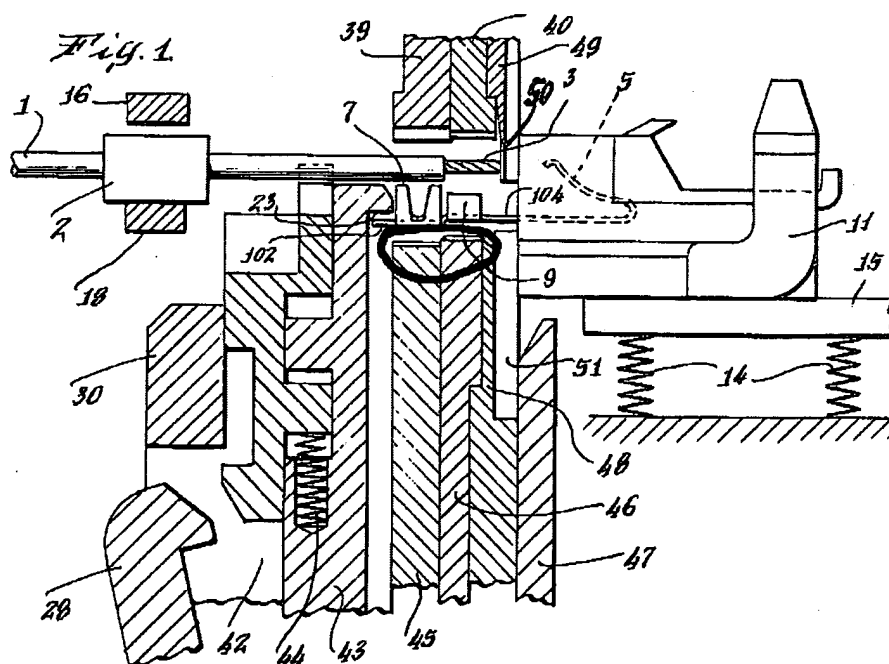
c. Regarding claims 3 and 4, Wigby et al. disclose the same invention as the applicant, including a guide member operatively associated with a crimper such

that the guide member is caused to retreat from a component during the downward motion of the crimper, before the crimper abuts the terminal. See In. 50 of col. 3 to In. 11 of col. 4; see col. 4, Ins. 40-47; in order to make allow the various components to move relative to each other, they are actuated (and linked) by connected rods interconnected with cams; see *Howstuffworks "Inline Four-Cylinder Engine"* for a clear understanding of how connecting rod mechanisms operate. Since the step shown in Fig. 2 the guide 42 moves away from the component (wire) and crimp blades 39 and 40 move downward, and since a connecting rod mechanism is employed, it is deemed inherent that some degree of movement of guide 42 away from the wire will occur as the crimp blades begin to descend.

d. Regarding claims 5-7 and 15, Wigby et al. disclose the same invention as the applicant, including a wire termination apparatus having a guide member that is linked to a crimper via a linking piece. See discussion in part c above regarding the linking of various components.

e. Regarding claim 8 (as best understood), Wigby et al. disclose the same invention as the applicant, including an apparatus configured to allow insertion of a second conductor into a collapsible terminal disposed on an anvil in a direction perpendicular to a conductive lead. The collapsible terminal shown in Fig. 1 is disposed on an anvil in a direction perpendicular to a conductive lead (conductor 3). Furthermore, a second conductor *could* be inserted in the terminal, i.e. the apparatus *allows* the insertion of a second conductor.

f. Regarding claim 16, Wigby et al. disclose the same invention as the applicant, including a recess disposed in the anvil to retain a collapsible terminal and a crimper disposed on a vertical ram, aligned with the recess. See arcuate groove 62 in Fig. 5; note that both anvils 45 and 46 have such grooves; see circled area in the figure below. Crimping blades 39 and 40 in Fig. 1 are inherently mounted on some support which comprises the actuating means, i.e. the crimping blades are mounted on a vertical ram.



14. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukase (JP10261476A, of which US6742251 is an English language equivalent).

a. Regarding claim 1, Fukase discloses the same invention as the applicant, including:

- i. an anvil configured to support a collapsible terminal (23, 24 in Fig. 3);
 - ii. a crimper aligned with the anvil (21, 22 in Fig. 3), the crimper and the anvil being movable toward and away from each other to crush and release a terminal (terminal 8 in Fig. 3)
 - iii. a guide member having an upwardly open guide groove provided close to the anvil and aligned therewith for supporting a component and guiding a conductive lead into an insertion hole in a terminal (positioning member 27 in Fig. 3);
- b. Regarding claim 9, Fukase discloses the same invention as the applicant, including a positioning plate for positioning the elongate component by abutting the tip thereof (positioning member 27 in Fig. 3), the positioning plate having an escape groove (groove in 27 in which spring 31 is inserted) for allowing movement of the conductive lead during termination thereof. Portion 28 (in Fig. 3) of plate 27 is used for abutting the tip of a component. The escape groove receives and holds the spring 31 below the plate 27, and therefore allows for movement of a conductive lead during a terminating operation.
15. Claims 1, 5, and 14-16 are alternatively rejected under 35 U.S.C. 102(b) as being anticipated by Sullivan (US3587158).
- a. Regarding claims 1 and 14, Sullivan discloses the same invention as the applicant, including:

- i. an anvil configured to support a collapsible terminal (anvil in Fig. 1 corresponding to crimper 16);
 - ii. a crimper aligned with the anvil (crimper 16 in Fig. 1), the crimper and the anvil being movable toward and away from each other to crush and release a terminal (see col. 1, Ins. 1-10)
 - iii. a guide member having an upwardly open guide groove provided close to the anvil and aligned therewith for supporting a component and guiding a conductive lead into an insertion hole in a terminal (gripping members 22 in Fig. 1);
- b. Regarding claims 5 and 15, Sullivan discloses the same invention as the applicant, including a guide member being linked to a crimper via a linking piece (see Fig. 1; wire guide device 20, ram 30, and bolt 21 link the crimper 16 to the guide 22)
- c. Regarding claim 16, Sullivan discloses the same invention as the applicant, including a recess disposed in an anvil to retain a collapsible terminal and a crimper disposed on a vertical ram, aligned with the recess (see Fig. 1; crimper 16 is mounted on vertical ram aligned with the recess in the anvil; see convex top surface of the anvil in Fig. 1)

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wigby et al. in view of Fukase.

Wigby et al disclose the same invention as the applicant, except for a positioning plate for positioning an elongate component by abutting a tip thereof, the positioning plate having an escape groove for allowing movement of the conductive lead during termination thereof.

Fukase teaches these limitations (see discussion in part **14b** above, regarding claim 9), wherein a large diameter portion (6 in Fig. 3) of a component is not allowed to enter a crimping area of a crimping machine by abutting against the positioning plate (portion 28 of late 27 in Fig. 3) and wherein an escape groove in the plate allows for movement of a conductive lead during a termination operation.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Wigby et al., in view of the teachings of Fukase, by adding such a positioning plate, in order to allow only the part of the

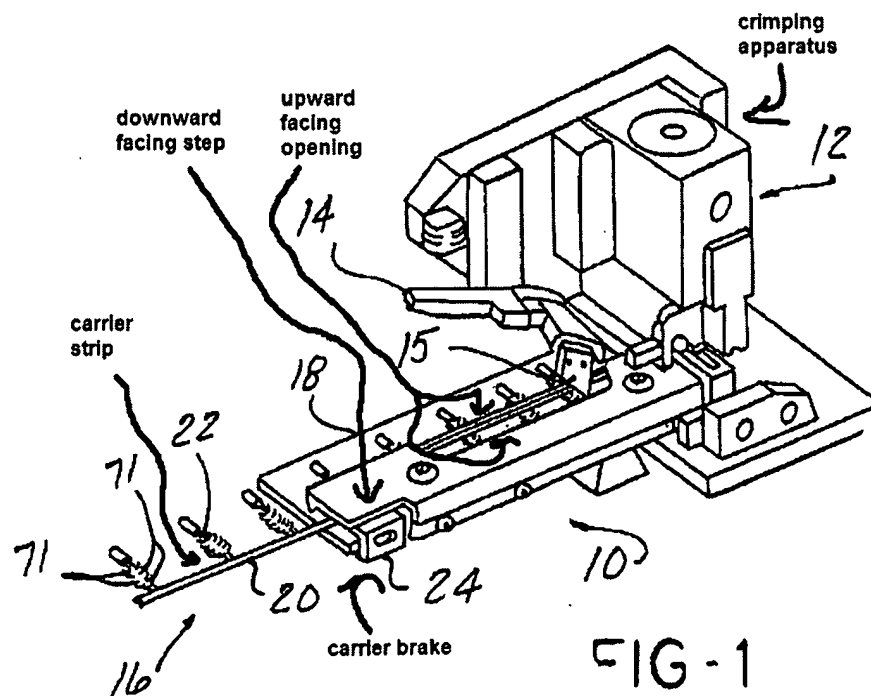
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component which should be crimped to enter the crimping area of the machine and in order to allow movement of a conductive lead during termination.

18. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wigby et al. in view of Baldyga (US5564613).

Wigby et al. disclose the same invention as the applicant, except for a rail for guiding successive collapsible terminals mounted on a carrier strip onto an anvil wherein the rail has a downward facing step for retaining the carrier strip and an upward facing opening to accommodate the collapsible terminals and wherein a carrier brake is mounted on the rail and biased into frictional contact with the carrier strip.

Baldyga teaches these limitations. See col. 2, Ins. 50-55 as well as the image below.



Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wigby et al., in view of the teachings of Baldyga, by providing a rail for guiding successive collapsible terminals mounted on a carrier strip onto an anvil wherein the rail has a downward facing step for retaining the carrier strip and an upward facing opening to accommodate the collapsible terminals and wherein a carrier brake is mounted on the rail and biased into frictional contact with the carrier strip, in order to provide an efficient means of supplying terminals to the crimping apparatus.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Livius R. Cazan whose telephone number is (571) 272-8032. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571)272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LRC 02/17/2006

A handwritten signature in black ink, appearing to read "PETER VO", with a long horizontal line extending from the end of the signature.

PETER VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700